

8-18-04

JFW



EXPRESS MAIL NO. EV449562444US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Orest W. Blaschuk and Barbara J. Gour  
Application No. : 10/648,854  
Filed : August 25, 2003  
For : COMPOUNDS AND METHODS FOR REGULATING CELL  
ADHESION

Art Unit : 1631  
Docket No. : 100086.402C2  
Date : August 16, 2004

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents:

In accordance with 37 CFR 1.56 and 1.97 through 1.98, applicants wish to make known to the U.S. Patent and Trademark Office the references set forth on the attached Form PTO-1449. Applicants note that since the application filing date is after June 30, 2003, copies of the cited U.S. patents and published patent applications are not required and accordingly have not been provided. Copies of all other cited references are enclosed. As to any reference cited, applicants do not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserve the right to traverse or antedate any such reference, as by a showing under 37 CFR 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is

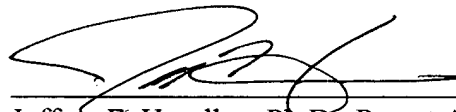
believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Applicants believe this Information Disclosure Statement has been timely filed, however, the Director is authorized to charge any fee due by way of this Information Disclosure Statement to our Deposit Account No. 19-1090.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



---

Jeffrey E. Hundley, Ph.D., Patent Agent  
Registration No. 42,676

JEH:ljt

Enclosures:

Postcard  
Transmittal Form  
Forms PTO-1449 (6 Sheets)  
Cited References (58)

701 Fifth Avenue, Suite 6300  
Seattle, Washington 98104-7092  
Phone: (206) 622-4900  
Fax: (206) 682-6031

\478372



EXPRESS MAIL NO. EV449562444US

**TRANSMITTAL  
FORM***(To be used for all correspondence  
after initial filing)*

Application Number	10/648,854
Filing Date	August 25, 2003
First Named Inventor	Orest W. Blaschuk
Art Unit	1631
Examiner Name	
Attorney Docket No.	100086.402C2

**ENCLOSURES (check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement; Forms PTO-1449 (6 Sheets) <input checked="" type="checkbox"/> 58 Cited References <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts under 37 C.F.R. 1.52 or 1.53 <input type="checkbox"/> Response to Missing Parts/Incomplete Application	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Request for Corrected Filing Receipt <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address <input type="checkbox"/> Declaration <input type="checkbox"/> Statement under 37 CFR 3.73(b) <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund	<input type="checkbox"/> CD(s), Number of CD(s) _____ <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group ( <i>Appeal Notice, Brief, Reply Brief</i> ) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Return Receipt Postcard <input type="checkbox"/> Additional Enclosure(s) ( <i>please identify below</i> ): _____ _____ _____
--	---	--

**Remarks****SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Individual Name	Jeffrey E. Hundley, Ph.D., Patent Agent Reg. No. 42,676	Customer Number <b>00500</b>
Signature		
Date	August 16, 2004	

**CERTIFICATE OF TRANSMISSION/MAILING****VIA EXPRESS MAIL**

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

1478364

FORM PTO-1449  
(REV.7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
100086.402C2APPLICATION NO.  
10/648,854

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS

Orest W. Blaschuk and Barbara J. Gour

FILING DATE

August 25, 2003

GROUP ART UNIT

1631

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,231,082	07/27/93	Schasteen	514	11	
	AB	5,352,667	10/04/94	Lider et al.	514	19	
	AC	5,470,966	11/28/95	Hirano et al.	536	23.5	
	AD	5,510,628	04/23/96	Georger, Jr. et al.	257	32	
	AE	5,585,351	12/17/96	Ranscht	514	12	
	AF	5,591,432	01/07/97	Bronson et al.	424	130.1	
	AG	5,646,250	07/08/97	Suzuki	530	350	
	AH	5,665,590	09/09/97	Yang	435	6	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AI	EP 406 428 B1	01/03/95	EPO		
	AJ	WO 91/04745	04/18/91	WIPO		
	AK	WO 92/08731	05/29/92	WIPO		
	AL	WO 94/11401	05/26/94	WIPO		

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AM	Alexander et al., "An N-Cadherin-Like Protein Contributes to Solute Barrier Maintenance in Cultured Endothelium," <i>Journal of Cellular Physiology</i> 156: 610-618, 1993.
	AN	Ali et al., "Conformationally Constrained Peptides and Semipeptides Derived from RGD as Potent Inhibitors of the Platelet Fibrinogen Receptor and Platelet Aggregation," <i>J. Med. Chem.</i> 37(6): 769-780, 1994.
	AO	Berkow, R. (ed.), <i>The Merck Manual of Diagnosis and Therapy</i> , Merck, Sharpe & Dohme Research Laboratories, Rahway, New Jersey, 1992, pp. 1488-1489.
	AP	Blakemore, "Remyelination of CNS axons by Schwann cells transplanted from the sciatic nerve," <i>Nature</i> 266: 68-69, 1977.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449  
(REV.7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
100086.402C2APPLICATION NO.  
10/648,854**INFORMATION DISCLOSURE STATEMENT***(Use several sheets if necessary)*

## APPLICANTS

Orest W. Blaschuk and Barbara J. Gour

## FILING DATE

August 25, 2003

## GROUP ART UNIT

1631

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA	5,792,743	08/11/98	Schachner	514	2	

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	BB	WO 96/40781	12/19/96	WIPO		
	BC	WO 97/07209	02/27/97	WIPO		
	BD	WO 98/45319	10/15/98	WIPO		

**OTHER PRIOR ART** *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	BE	Blaschuk et al., "Identification of a Conserved Region Common to Cadherins and Influenza Strain A Hemagglutinins," <i>J. Mol. Biol.</i> 211: 679-682, 1990.
	BF	Blaschuk et al., "Identification of a Cadherin Cell Adhesion Recognition Sequence," <i>Developmental Biology</i> 139: 227-229, 1990.
	BG	Blaschuk et al., "E-Cadherin, estrogens and cancer: is there a connection?" <i>The Canadian Journal of Oncology</i> 4(4): 291-301, 1994.
	BH	Blaschuk and Farookhi, "Estradiol Stimulates Cadherin Expression in Rat Granulosa Cells," <i>Developmental Biology</i> 136: 564-567, 1989.
	BI	Bottenstein and Sato, "Growth of a rat neuroblastoma cell line in serum-free supplemented medium," <i>Proc.Natl. Acad. Sci. USA</i> 76(1): 514-517, 1979.
	BJ	Brecknell et al., "Bridge grafts of Fibroblast Growth Factor-4-Secreting Schwannoma Cells Promote Functional Axonal Regeneration in the Nigrostriatal Pathway of the Adult Rat," <i>Neuroscience</i> 74(3): 775-784, 1996.
	BK	Brockes et al., "Studies on Cultured Rat Schwann Cells. I. Establishment of Purified Populations from Cultures of Peripheral Nerve," <i>Brain Research</i> 165: 105-118, 1979.
	BL	Brook et al., "Morphology and Migration of Cultured Schwann Cells Transplanted Into the Fimbria and Hippocampus in Adult Rats," <i>GLIA</i> 9: 292-304, 1993.
	BM	Byers et al., "Fibroblast Growth Factor Receptors Contain a Conserved HAV Region Common to Cadherins and Influenza Strain A Hemagglutinins: A Role in Protein-Protein Interactions?," <i>Developmental Biology</i> 152: 411-414, 1992.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449  
(REV.7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
100086.402C2APPLICATION NO.  
10/648,854

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

## APPLICANTS

Orest W. Blaschuk and Barbara J. Gour

## FILING DATE

August 25, 2003

## GROUP ART UNIT

1631

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	CB					

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	CC	Cardarelli et al., "The Collagen Receptor $\alpha 2 \beta 1$ , from MG-63 and HT1080 Cells, Interacts with a Cyclic RGD Peptide," <i>The Journal of Biological Chemistry</i> 267(32): 23159-23164, 1992.
	CD	Carlstedt et al., "Nerve Fibre Regeneration Across the PNS-CNS Interface at the Root-Spinal Cord Junction," <i>Brain Research Bulletin</i> 22: 93-102, 1989.
	CE	Cepek et al., "Expression of a candidate cadherin in T lymphocytes," <i>Proc. Natl. Acad. Sci. USA</i> 93: 6567-6571, June 1996.
	CF	Chuah et al., "Differentiation and survival of rat olfactory epithelial neurons in dissociated cell culture," <i>Brain Research Developmental Brain Research</i> 60: 123-132, 1991.
	CG	Craig et al., "Concept and Progress in the Development of RGD-Containing Peptide Pharmaceuticals," <i>Biopolymers (Peptide Science)</i> 37: 157-175, 1995.
	CH	Doherty et al., "Neurite Outgrowth in Response to Transfected N-CAM and N-Cadherin Reveals Fundamental Differences in Neuronal Responsiveness to CAMS," <i>Neuron</i> 6: 247-258, February 1991.
	CI	Doherty and Walsh, "CAM-FGF Receptor Interactions: A Model for Axonal Growth," <i>Molecular and Cellular Neuroscience</i> 8(Article No. 0049): 99-111, 1996.
	CJ	Doherty and Walsh, "Signal transduction events underlying neurite outgrowth stimulated by cell adhesion molecules," <i>Current Opinion in Neurobiology</i> 4: 49-55, 1994.
	CK	Duncan et al., "Transplantation of oligodendrocytes and Schwann cells into the spinal cord of the myelin-deficient rat," <i>Journal of Neurocytology</i> 17: 351-360, June 1988.
	CL	Fok-Seang et al., "An analysis of astrocytic cell lines with different abilities to promote axon growth," <i>Brain Research</i> 689: 207-223, 1995.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449  
(REV.7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
100086.402C2APPLICATION NO.  
10/648,854**INFORMATION DISCLOSURE STATEMENT***(Use several sheets if necessary)*

## APPLICANTS

Orest W. Blaschuk and Barbara J. Gour

## FILING DATE

August 25, 2003

## GROUP ART UNIT

1631

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	DB					

**OTHER PRIOR ART** *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	DC	Fok-Seang et al., "Migration of Oligodendrocyte Precursors on Astrocytes and Meningeal Cells," <i>Developmental Biology</i> 171: 1-15, September 1995.
	DD	Franz, "Percutaneous Absorption. On The Relevance Of In Vitro Data," <i>The Journal of Investigative Dermatology</i> 64(3): 190-195, March 1975.
	DE	Franz, "The Finite Dose Technique as a Valid <i>in Vitro</i> Model for the Study of Percutaneous Absorption in Man," <i>Curr. Probl. Dermatol.</i> 7: 58-68, 1978.
	DF	Ghirnikar and Eng, "Astrocyte-Schwann Cell Interactions in Culture," <i>GLIA</i> 11: 367-377, 1994.
	DG	Gumbiner et al., "The Role of the Cell Adhesion Molecule Uvomorulin in the Formation and Maintenance of the Epithelial Junctional Complex," <i>The Journal of Cell Biology</i> 107: 1575-1587, October 1988.
	DH	Iruela-Arispe et al., "Expression of SPARC during Development of the Chicken Chorioallantoic Membrane: Evidence for Regulated Proteolysis In Vivo," <i>Molecular Biology of the Cell</i> 6: 327-343, March 1995.
	DI	Laird et al., "Gap Junction Turnover, Intracellular Trafficking, and Phosphorylation of Connexin43 in Brefeldin A-treated Rat Mammary Tumor Cells," <i>The Journal of Cell Biology</i> 131(5): 1193-1203, December 1995.
	DJ	Lee et al., "Expression of the Homotypic Adhesion Molecule E-Cadherin by Immature Murine Thymocytes and Thymic Epithelial Cells," <i>Journal of Immunology</i> 152: 5653-5659, 1994.
	DK	Letourneau et al., "Interactions of Schwann Cells with Neurites and with Other Schwann Cells Involve the Calcium-dependent Adhesion Molecule, N-cadherin," <i>Journal of Neurobiology</i> 22(7): 707-720, 1991.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 100086.402C2	APPLICATION NO. 10/648,854
<b>INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>		APPLICANTS Orest W. Blaschuk and Barbara J. Gour	
		FILING DATE August 25, 2003	GROUP ART UNIT 1631

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	EA						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	EB					

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	EC	Liuzzi and Lasek, "Astrocytes Block Axonal Regeneration in Mammals by Activating the Physiological Stop Pathway," <i>Science</i> 237: 642-645, 1987.
	ED	Lutz et al., "Secondary Structure of the HAV Peptide Which Regulates Cadherin-Cadherin Interaction," <i>Journal of Biomolecular Structure &amp; Dynamics</i> 13(3): 447-455, 1995.
	EE	Matsuzaki et al., "cDNAs of Cell Adhesion Molecules of Different Specificity Induce Changes in Cell Shape and Border Formation in Cultured S180 Cells," <i>The Journal of Cell Biology</i> 110: 1239-1252, April 1990.
	EF	McCarthy and Vellis, "Preparation of Separate Astroglial and Oligodendroglial Cell Cultures from Rat Cerebral Tissue," <i>J. Cell Biology</i> 85: 890-902, June 1980.
	EG	Mege et al., "Construction of epithelioid sheets by transfection of mouse sarcoma cells with cDNAs for chicken cell adhesion molecules," <i>Proc. Natl. Acad. Sci. USA</i> 85: 7274-7278, October 1988.
	EH	Munro et al., "Characterization of Cadherins Expressed by Murine Thymocytes," <i>Cellular Immunology</i> 169(Article No. 0123): 309-312, 1996.
	EI	Munro and Blaschuk, <i>Cell Adhesion and Invasion in Cancer Metastasis</i> , R.G. Landes Company, Austin, TX, 1996, Chapter 3, "The Structure, Function and Regulation of Cadherins," pp. 17-34.
	EJ	Newton et al., "N-Cadherin Mediates Sertoli Cell-Spermatogenic Cell Adhesion," <i>Developmental Dynamics</i> 197: 1-13, 1993.
	EK	Nose et al., "Localization of Specificity Determining Sites in Cadherin Cell Adhesion Molecules," <i>Cell</i> 61: 147-155, 1990.
	EL	Orr, "Angiogenesis Research Offers New Approaches to Treatment of Disease," <i>Genetic Engineering News</i> , pp. 15-16, 42, May 1, 1996.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).



FORM PTO-1449 (REV.7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 100086.402C2		APPLICATION NO. 10/648,854	
<b>INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>				APPLICANTS Orest W. Blaschuk and Barbara J. Gour			
				FILING DATE August 25, 2003		GROUP ART UNIT 1631	
<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	FA						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY		TRANSLATION	
						YES	NO
	FB						
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
	FC		Overduin et al., "Solution Structure of the Epithelial Cadherin Domain Responsible for Selective Cell Adhesion," <i>Science</i> 267: 386-389, January 20, 1995.				
	FD		Redies and Takeichi, "Cadherins in the Developing Central Nervous System: An Adhesive Code for Segmental and Functional Subdivisions," <i>Developmental Biology</i> 180: 413-423, 1996.				
	FE		Saffell et al., "Expression of a Dominant Negative FGF Receptor Inhibits Axonal Growth and FGF Receptor Phosphorylation Stimulated by CAMs," <i>Neuron</i> , pp. 231-242, February 1997.				
	FF		Samanen et al., "Development of a Small RGD Peptide Fibrinogen Receptor Antagonist with Potent Antiaggregatory Activity in Vitro," <i>J. Med. Chem.</i> 34(10): 3114-3125, 1991.				
	FG		Shapiro et al., "Structural basis of cell-cell adhesion by cadherins," <i>Nature</i> 374: 327-337, March 23, 1995.				
	FH		Tsutsui et al., "Expression of Cadherin-Catenin Complexes in Human Leukemia Cell Lines," <i>J. Biochem.</i> 120: 1034-1039, 1996.				
	FI		Wickelgren, "Breaking the Skin Barrier," <i>PS</i> 12: 86-88, 1996.				
	FJ		Willems et al., "Cadherin-dependent cell aggregation is affected by decapeptide derived from rat extracellular super-oxide dismutase," <i>FEBS Letters</i> 363: 289-292, 1995.				
	FK		Williams et al., "Activation of the FGF Receptor Underlies Neurite Outgrowth Stimulated by L1, N-CAM, and N-Cadherin," <i>Neuron</i> 13: 583-594, September 1994.				
	FL						
	FM						
EXAMINER				DATE CONSIDERED			
<b>* EXAMINER:</b> Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance <u>and</u> not considered. Include copy of this form with next communication to applicant(s).							